Clmpto
Klv
04/19/01

1. A real time recording/reproducing system for converting an analog image signal in an analog-to-digital converter (ADC) to digital data, recording the digital data in a recorder, reading out the digital data recorded in the recorder and converting the read-out digital data in a digital-to-analog converter (DAC) to analog data to be outputted, the real time recording/reproducing system comprising:

a first frame memory for storing the output of the ADC;

a compression processing module for compressing the output of the first frame memory;

a decompression processing module for decompressing the digital data read out from the recorder;

a second frame memory for storing the output of the decompression processing module and outputting the stored data to the DAC; and

a frame rate controller for controlling the compression processing module.

2. A real time recording/reproducing system for converting an analog image signal in an analog-to-digital converter (ADC) to digital data, recording the digital data in a recorder, reading out the digital data recorded in the recorder and converting the read-out digital data in a digital-to-analog converter (DAC) to analog data to be outputted, the real time recording/reproducing system comprising:

a first frame memory for storing the output of the ADC;

a compression processing module for compressing the output of the first frame memory;

a decompression processing module for decompressing the digital data read out from the recorder;

a second frame memory for storing the output of the decompression processing module and outputting the stored data to the DAC; and

a frame rate controller for controlling the frame rate of the compression processing module to be constant by executing a frame interpolating processing.

3. A real time recording/reproducing system for converting an analog image signal in an analog-to-digital converter (ADC) to digital data, recording the digital data in a recorder, reading out the digital data recorded in the recorder and converting the read-out digital data in a digital-to-analog converter (DAC) to analog data to be outputted, the real time recording/reproducing system comprising:

a first frame memory for storing the output of the ADC;

a compression processing module for compressing the output of the first frame memory;

a decompression processing module for decompressing the digital data read out from the recorder and executing a frame skipping processing when it becomes unable to execute full frame real time decompression processing;

a second frame memory for storing the output of the decompression processing module and outputting the stored data to the DAC; and

a frame rate controller for controlling the compression processing module.

Claim 4 (amended). The real time recording/reproducing system according to [one of claims 1 to 3] claim 1, wherein the frame thinning-out in the decompression processing module and the frame skipping in the decompression processing module are performed preferentially from frame-interpolation frames to generate digital compressed data involving much motion.

Claim 5 (amended). The real time recording/reproducing system according to [one of claims 1 to 3] claim 1, wherein the compression processing modules adds data bit stream data including a picture header representing the start of a frame compression code, a user data representing a thinned-out frame and a reference frame code representing the same frame as a reference frame.

6. A real time recording/reproducing system for recording a digital data in a recorder obtained by converting an analog image signal, and reproducing the recorded the digital data through in the analog data fromat comprising steps of:

storing the digital data in a first frame memory;

compressing the output of the first frame memory;

decompressing the digital data read out from the recorder;

storing the decompressed data in a second memory;

controlling the frame rate of the compressed data to be constant by executing a frame interpolating processing; and

executing a frame skipping processing when it becomes unable to execute full frame real time decompression processing.

7. The real time recording/reproducing system according to claim 6, wherein the frame thinning-out and the frame skipping operations are performed preferentially from frame-interpolation frames to generate digital compressed data involving much motion.

8. The real time recording/reproducing system according to claim 6, wherein in the compression processing operation data bit stream data including a picture header representing the start of a frame compression code, a user data representing a thinned-out frame and a reference frame code representing the same frame are addedas a reference frame.